

Hanson Cement Liaison Group Meeting
Held on Wednesday 6th April 2022
Attended by Cllrs K Payne and G Brown

Introduction

The Hanson Cement Liaison Group meetings are held every three to four months and are attended by the senior management from the cement works, local parish council representatives, RCC Planning Department and the Environment Agency, in addition to the ward members.

Operational Matters

Health and Safety remains a high priority for the site with only one lost-time accident in the last 4 months which involved cement dust in an operator's eye, caused by poor use by the operator of the PPE provided and issues around the methodology of maintenance. Both issues have been dealt with on a permanent basis. Near-miss reports, which are encouraged by the company, are low compared to similar sites and industries.

The impact of inflation on energy prices and the sanctions placed on Russia/Belarus is having a significant impact on the operational costs of the site with coal has rising from £70 per tonne to £250 per tonne and issues with the availability of the material. Fortunately, Hanson have about 12 months' supply of coal stored on site. These cost increases have caused a number of European cement plants to close in the last three months and more are on the edge of closing as they are losing significant sums of money. Due to these factors and technical problems with some of Hanson's UK competitors, there is currently a shortage of cement in the UK. It was also noted that [carbon credits](#) have jumped in price from £35 per tonne of CO₂ to £70 per tonne. This significantly impacts the operational costs since every tonne of cement generates 800 kg of CO₂.

Programme to reduce CO₂ emissions

A detailed program was discussed on the company's work to reduce CO₂ emissions, particularly the use of alternative fuels involved in the cement manufacturing process.

Historically pulverised coal was used to heat the main kiln; however in recent years, use has been made of Cemfuel (recycled liquid fuel such as solvents, glycerine, etc.) and Profuel (refuse-derived fuels including biomass - paper and cardboard). Coal is still used to maintain the high temperature required in a kiln of 1350°C. The current mix is approximate 25% coal, 20% Cemfuel and 52% Profuel, of which more than half of the Profuel is biomass material.

The use of hydrogen was tested in the kiln in late 2021, and indications are that the results were inconsistent, so the equipment has been transferred back to the Hanson plant at Ribblesdale, where a previous test proved successful due to a totally different fuel mix including 12% meat and bonemeal and 49% glycerine.

Further work is continuing to reduce CO₂ emissions across the whole site, including the use of a higher proportion of limestone in the final kiln mix, which could reduce CO₂ emissions by about 6%, consideration of CO₂ capture and storage as well as a heat recovery system using the hot gases from the kiln to generate electricity via a steam turbine. Blast furnace slag, a by-product of steel

Hanson Cement Liaison Group Meeting
Held on Wednesday 6th April 2022
Attended by Cllrs K Payne and G Brown

production, has been introduced as an additive to the kiln, as this has had the CO₂ removed from it through the steel making process.

Environment Agency Report

A senior representative from the Environment Agency attended the meeting and reported on the site performance against agreed maximum emissions levels in 2021. There were no breaches of the emission levels, including air quality, surface water and stack emissions. The table below shows the maximum level and actual levels obtained from the stack emission monitoring system all measured in mg/m³

	Maximum permitted	Actual
Particulates	10	3
Sulphur Dioxide	200	25
Nitrogen Oxides	450	400
Volatile Organic Carbons	80	15
Hydrogen Chloride	10	3
Carbon Dioxide	1600	900
Ammonia	60	6

The Environment Agency is working with the company to investigate one noise frequency complaint (not noise level) from one individual in Ketton. To date, neither the company nor the EA has been able to identify the source, but the use of noise imaging cameras is now being used to determine the source.

During the coming year, the company and the EA have agreed to work on the following areas

- reduce fugitive dust from the operations
- upgrade all tanks and bunds to the best available technology
- improve the bypass ducting system on the cement silos.

In addition, the EA will continue their routine inspections for 2022 and concentrate on housekeeping, waste management, and improving the overall approach to low-level operational environmental matters across the site.

Overall the site is rated as “C” (**Good**) by the Environment Agency, across a range from “A” to “F”.